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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,748	04/20/2006	Matthias Gygi	1204.1122101	5925

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EXAMINER	
CHEN, YUAN L	

ART UNIT	PAPER NUMBER
4193	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,748	GYGI, MATTHIAS	
	Examiner	Art Unit	
	Yuan L. Chen	4193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *10 and 17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 11-16,18-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/21/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 6, 11 - 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van den Brink et al. (Patent No.: US 6668718) in view of Kondo (Patent No.: 5075700).

With respect to Claim 1, Van den Brink et al. 7disclose in Fig. 7 and column 3 lines 57 - 63: a printing machine for printing a substrate (S) in the form of a sheet or continuous web, said substrate (S) being intended to receive at least one impression, comprising at least one transfer system (10) for conveying the substrate (S) onto an impression cylinder (4), at least one screen (6) of cylindrical or flat shape, the screen (6) collaborating with the impression cylinder (4) and intended to print the substrate (S) by screen-printing (column 3 line 63) and an unloading system (column 3 lines 55 – 56) for carrying the substrate (S) away after the printing operation.

Van den Brink et al. do not teach that the screen is equipped with a doctor blade, an ink is containing pigments that can be orientated by a magnetic field and said impression cylinder comprises at least one magnetic element on its

printing surface, said magnetic element being placed at a location corresponding to said impression on said substrate performed by said screen.

However Kondo teaches in Fig. 2 and in column 2 lines 9 – 23 and column 3 lines 48 - 51: the screen (13) is equipped with a doctor blade (16), an ink (21c) is containing pigments (magnetic powder in column 1 line 61) that can be orientated by a magnetic field (magnetic lines in column 3 line 54) and said impression cylinder (18) comprises at least one magnetic element (18a) on its printing surface, said magnetic element (18a) being placed at a location corresponding to said impression on said substrate (17) performed by said screen (13)

Therefore it would be obvious to a person of ordinary skill in the art at the time of invention was made to have modified Van den Brink et al's screen printing machine by including the doctor blade, the magnetic ink and the magnetic element in the impression cylinder as taught by Kondo because the modification/combination would print a specially designed pattern for the purpose of making variety of printing production more efficiently and securer.

The modification/combination meets all the limitation of Claim 1.

With respect to Claim 6, the modification/combination also meets all the limitations of Claim 6 (column 3 lines 54 – 57 of Kondo): the printing machine as claimed in claim 1, in which said magnetic element or elements (18a) create a magnetic field (magnetic lines in column 3 line 54) in a predetermined direction.

With respect to Claim 11, the modification/combination also meets all the limitations of Claim 11 (see Fig. 2 and column 3 lines 48 – 51 of Kondo): a method of screen-printing (after modification/combination) a substrate (17) in the form of a sheet or web, in which an impression is formed using an ink (21c) containing magnetic pigments, said impression being formed by passing said substrate (17) in contact with an impression cylinder (18) with which there collaborates at least one screen (13) of cylindrical or fiat shape equipped with a doctor blade (16) for screen-printing said ink (21c), wherein said impression is subjected to a magnetic field (lines) before it dries so as to orientate said pigments.

With respect to Claim 12, the modification/combination also meets all the limitations of Claim 11 (column 3 lines 54 – 57 of Kondo): the printing method as claimed in claim 11, in which the magnetic field (lines) orientates the pigments in a predetermined direction.

With respect to Claim 20, the modification/combination also meets all the limitations of Claim 20 (column 3 lines 54 – 57 of Kondo): the method as claimed in claim 11, wherein said magnetic field (lines) needed for orientating said pigments (powder) is produced by means of a cylinder (18) bearing at least one magnetic element (18a) on its surface.

3. Claims 2, 7, 13 -16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van den Brink et al. in view of Kondo as applied to claims 1 and 11 above, and further in view of Pearce (Patent No.: US 4186944).

With respect to Claim 2, the modification/combination discussed in Claim 1 teaches all the limitations of Claim 2 except the impressions arranged in the form of matrix.

However Pearce discloses in Fig. 2 and column 3 lines 19 - 24: the substrate (plate) receives a plurality of impressions arranged (column 3 line 19) in the form of a matrix (blocks ABCD column 3 line 20) and wherein the impression cylinder comprises a plurality of magnetic elements (electromagnet column 3 line 1) arranged (column 3 line 3) in a corresponding matrix form (blocks ABCD).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the printing machine from the combination of Van den Brink et al. and Kondo by using the arrangement of a matrix form as taught by Pearce because the modification/combination would give a large area of highly finished surface for the purpose of making the printing products with better quality.

This modification/combination meets all the limitations of Claim 2.

With respect to Claim 7, the modification/combination also meets all the limitations of Claim 7: the printing machine as claimed in claim 6, in which said magnetic element or elements (electromagnet column 3 line 1 of Pearce) are orientated in a direction parallel and/or perpendicular (see the arrows as show in Fig. 2 of Pearce) to the direction of travel of the substrate (plate).

With respect to Claim 13, the modification/combination also meets all the limitations of Claim 13: the pigments (column 4 line 19 of Pearce) are orientated (column 3 lines 22 – 24) in a direction parallel and/or perpendicular (see the arrows as show in Fig. 2) to the direction of travel of the substrate (plate).

With respect to Claim 14, the modification/combination also meets all the limitations of Claim 14 (see Fig. 4 and column 3 lines 58 – 62 of Pearce): the printing method as claimed claim 12, in which a first impression is formed on the substrate (plate) using an ink with varying optical effect (column 4 lines 16 – 18), said impression is subjected to a first magnetic field (column 3 line 58) orientating the pigments (column 4 line 19 of) in a first direction(arrow 8), said first impression is dried (using drier in the ink in column 2 line 52), a second impression is formed on the first impression (those magnetic particles lying above as other particles being unchanged in column 4 lines 3 – 5) using an ink with varying optical effect (column 4 lines 16 – 18), said second impression is subjected to a second magnetic field orientating the pigments in a second direction (arrow 12), and said second impression is dried.

With respect to Claim 15, the modification/combination also meets all the limitations of Claim 15 (see Fig. 4 and column 3 lines 58 – 62 of Pearce): the method as claimed in claim 14, in which the first direction (arrow 8) and the second direction (arrow 12) are different.

With respect to Claim 16, the modification/combination also meets all the limitations of Claim 16: the method as claimed in claim 11, in which said

impressions comprises a plurality of individual impressions (bars as shown in Fig. 2 of Pearce) arranged (column 3 line 19) in a matrix form (blocks ABCD)

With respect to Claim 21, the modification/combination also meets all the limitations of Claim 21 (column 3 lines 2 - 4 of Pearce): the method as claimed in claim 16, wherein a corresponding magnetic field is produced for each of said individual impressions.

4. Claims 3 - 5, 8 - 9, 19, 22, and 24 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van den Brink et al. in view of Kondo, and further in view of Arahara et al. (Patent No.: US 5151712).

With respect to Claim 3, the modification/combination discussed in Claim 1 teaches all the limitations of Claim 3 except that the unloading system comprises a cylinder having at least one magnetic element on its surface, said magnetic element being placed at a location corresponding to said impression on said substrate performed by said screen.

However Arahara et al. disclose in Fig. 4 and column 13 lines 34 - 47: the unloading system (52, 8 and 9) comprises a cylinder (52) having at least one element (supplied by 105) on its surface, said element being placed at a location corresponding to said impression (201) on said substrate (10) performed by said screen (1).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the printing machine from the combination of Van den Brink et al. and Kondo by adding the magnet element to

the unloading system as taught by Arahara et al. because the modification/combination would give a another choice of impression for the purpose of making the printing products more effectively.

With respect to Claim 4, this modification/combination meets all the limitations of Claim 4: the printing machine as claimed in claim 3, in which said cylinder is an unloading cylinder (52 in Fig. 4 of Arahara et al.).

With respect to Claim 5, this modification/combination meets all the limitations of Claim 5: the printing machine as claimed in claim 3, in which said cylinder is an intermediate cylinder (8 column 14 lines 4 - 5).

With respect to Claim 8, this modification/combination meets all the limitations of Claim 8: a cylinder for printing or transferring a substrate (10) in the form of a sheet or continuous web, said substrate (10) being intended to receive at least one screen-printed impression with an ink (200) containing pigments that can be orientated by a magnetic field (after modification/combination), which cylinder comprises at least one magnetic element (4b after modification/combination) on its surface to orientate the pigments of said ink (200), and wherein said at least one magnetic element (4b) is covered by a sheet (4a) of non-magnetic material (column 13 lines 5 -6).

With respect to Claim 9, this modification/combination meets all the limitations of Claim 9: the cylinder as claimed in claim 8, wherein said sheet (4a) is made of aluminum or of stainless steel (column 13 lines 5 -6).

With respect to Claim 22, this modification/combination meets all the limitations of Claim 22 for the same reason applied to Claim 6 above.

With respect to Claims 24 and 26, this modification/combination meets all the limitations of Claims 24 and 26 for the same reason applied to Claim 9 above.

With respect to Claim 25, this modification/combination meets all the limitations of Claim 25 for the same reason applied to Claim 24 and 26 above.

5. Claims 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Van den Brink et al., Kondo and Arahara et al., and further in view of Pearce.

With respect to Claim 18, the combination, as applied to Claim 8 above, meets all the limitations of Claim 18 except that the cylinder comprises a plurality of magnetic elements arranged in a matrix form.

However Pearce discloses in Fig. 2 and column 3 lines 19 - 24: the cylinder comprises a plurality of magnetic elements (electromagnet column 3 line 1) arranged (column 3 line 3) in a matrix form (blocks ABCD).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the printing machine from the combination of Van den Brink et al., Kondo and Arahaba et al. by using the arrangement of a matrix form as taught by Pearce because the reasons for the obvious were already included in point # 3 above.

This modification/combination meets all the limitations of Claim 18.

With respect to Claim 23, the combination, as applied to Claim 3 above, meets all the limitations of Claim 23 except that the printing machine, in which said magnetic element or elements are orientated in a direction parallel and/or perpendicular to the direction of travel of the substrate.

However Pearce discloses in Fig. 2: the printing machine, in which said magnetic element or elements (electromagnet column 3 line 1 of Pearce) are orientated in a direction parallel and/or perpendicular (see the arrows as show in Fig. 2 of Pearce) to the direction of travel of the substrate (plate).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the printing machine from the combination of Van den Brink et al., Kondo and Arahaba et al. by using the orientated magnetic elements as taught by Pearce because the reasons for the obvious were already included in point # 3 above.

This modification/combination meets all the limitations of Claim 23.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References of Mey et al., Nishise et al. and Six disclose the methods for the magnetic printing. Reference of Nedblake et al. discloses a printing method for multiple impressions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuan L. Chen whose telephone number is

571-270-3799. The examiner can normally be reached on Monday-Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on 571-272-3784. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yc

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4/2/2008